

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1                    1. (Currently amended) A power device, comprising:  
2                    a semiconductor substrate of first conductivity having an upper surface and a  
3 lower surface;  
4                    a first electrode terminal coupled to a first conductive region provided proximate  
5 the upper surface of the substrate, the first electrode terminal being provided over the upper  
6 surface of the substrate;  
7                    a second electrode terminal coupled to a second conductive region provided  
8 proximate the lower surface of the substrate, the second electrode terminal being provided below  
9 the lower surface of the substrate;  
10                  an isolation diffusion region of second conductivity provided at a periphery of the  
11 substrate and extending from the upper surface to the lower surface of the substrate, the isolation  
12 diffusion region having a first surface corresponding to the upper surface of the substrate and a  
13 second surface corresponding to the lower surface;  
14                  a peripheral junction region of second conductivity formed at least partly within  
15 the isolation diffusion region and formed proximate the first surface of the isolation diffusion  
16 region; and  
17                  a passivation layer provided over the upper surface of the substrate, the first  
18 surface of the isolation diffusion region, and the peripheral junction region, the passivation layer  
19 comprising a polyimide layer over and oxide layer;  
20                  wherein the peripheral junction region is different than the first and second  
21 conductive regions, and  
22                  wherein the first and second electrode terminals define a vertical electrical current  
23 path therebetween.

1                    2. (Original) The device of claim 1, wherein the peripheral junction region is a  
2 P+ region and the isolation diffusion region is a P region.

1                    3. (Previously presented) The device of claim 1, wherein the peripheral junction  
2 region is provided to compensate the surface depletion of dopants in the isolation diffusion  
3 region.

4-25. (Canceled)

1                    26. (Previously presented) The device of claim 1, wherein the passivation layer  
2 includes an oxide layer and contacts the upper surface of the substrate, the first surface of the  
3 isolation diffusion region, and the peripheral junction region.

27. (Canceled)

1                    28. (Previously presented ) The device of claim 1, wherein the peripheral  
2 junction region is provided to compensate the surface depletion of dopants in the isolation  
3 diffusion region and increase a reverse blocking voltage of the device by reducing an electric  
4 field at the first surface of the isolation diffusion region.

29. (Canceled )

1                    30. (Previously presented) The device of claim 1, wherein the device is a diode  
2 and the first electrode terminal being separated from the isolation diffusion region.